

Claims

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1. A method of communicating between a first and a second node in a communications network, each of said nodes comprising a SIP client; said method comprising the steps of:-
 - 5 (i) associating computer software code with a SIP message;
 - (ii) sending the SIP message from the first SIP client associated with the first node to the second SIP client associated with the second node; and
 - (iii) executing the computer software using the second node.
 - 10 2. A method as claimed in claim 1 wherein said computer software code is added to the SIP message.
 3. A method as claimed in claim 1 wherein said step of associating computer software code with the SIP message comprises adding an address to the SIP message which indicates where the computer software is stored.
 - 15 4. A method as claimed in claim 3 wherein said address is a universal resource locator (URL).
 5. A method as claimed in claim 1 wherein said computer software code comprises Java byte code.
 6. A method as claimed in claim 1 wherein said computer software code comprises one or more Java applets.
 - 20 7. A method as claimed in claim 1 wherein said computer software code comprises one or more mobile automated software agents.
 8. A method as claimed in claim 1 wherein said mobile automated software agents are Java mobile agents.
 9. A method as claimed in claim 1 wherein said second node comprises a Java virtual machine.
 - 25 10. A method as claimed in claim 2 wherein the computer software codes is added to the body of the SIP message.

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11. A method as claimed in claim 1 which further comprises adding an indicator to a header of the SIP message in order to indicate the presence of the computer software code and arranging the second SIP client to recognise the indicator.
- 5 12. A method as claimed in claim 1 which further comprises the step of proceeding with any SIP process related to the SIP message.
13. A method as claimed in claim 11 wherein said second SIP client is arranged such that on receipt of a SIP message containing such an indicator, the computer software code associated with the SIP message is executed by the second node before that second node carries out any other processes related to the SIP message.
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14. A method as claimed in claim 1 wherein said computer software is arranged to interact with the second SIP client via a specified application programming interface.
- 15 15. A method as claimed in claim 1 wherein said computer software is arranged to interact with the processor associated with the second SIP client via a specified application programming interface.
16. A method as claimed in claim 1 wherein said computer software code is arranged to set up a multimedia conference call.
- 20 17. A method as claimed in claim 1 wherein said computer software code is arranged to upgrade or replace said SIP client.
18. A method as claimed in claim 1 wherein said computer software code is arranged to test said second node.
19. A method as claimed in claim 1 wherein said computer software code is arranged to forward a call from the first to the second node.
- 25 20. A communications network node comprising:
- (i) a SIP client;

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 (ii) an input arranged to receive SIP messages which may be associated with computer software code;

(iii) a processor arranged such that in use, when a SIP message is received, any computer software code associated with that SIP message is executed by the processor.

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 A communications network node as claimed in claim 15 wherein said processor comprises a Java virtual machine.

22. A communications network node as claimed in claim 15 which further comprises an application programming interface arranged to allow the computer software code to interact with the SIP client.

10 23. A communications network node as claimed in claim 15 wherein said processor further comprises a detector arranged to detect an indicator in a received SIP message which indicates that computer software code is associated with that SIP message.

15 24. A computer program arranged to control a communications network node, said node comprising a SIP client and a processor, said computer program being arranged to control the node such that if a SIP message is received by the SIP client, any computer software code associated with the received SIP message is executed by the processor.

20 25. A computer program as claimed in claim 24 which is stored on a computer readable medium.

26. A communications network comprising a plurality of communications network nodes each such node comprising:

(i) a SIP client;

25 (ii) an input arranged to receive SIP messages which may be associated with computer software code; and

(iii) a processor arranged such that in use, when a SIP message is received, any computer software code associated with that SIP message is executed by the processor.

27. A method of setting up a conference call between two or more parties, each party comprising a SIP client and a host processor, said method comprising the steps of:

- (i) associating computer software code with a SIP message;
 - (ii) sending the SIP message to each of the parties;
 - (iii) executing the computer software code at each of the host processors.

10 28. A method as claimed in claim 27 wherein the computer software code is
arranged to take into account capabilities of each host processor.

29. A method as claimed in claim 27 wherein said conference call is a multimedia conference call.

15 30. A system for automatically setting up a conference call between two or more parties, each party comprising a SIP client and a host processor, said system comprising:- a processor for associating computer software code with a SIP message and to send that SIP message to each of the parties; and wherein each of said host processors is arranged to execute the computer software code in use, when the SIP message is received.

20 31. A method of upgrading or replacing interconnected SIP clients each SIP client
being associated with a host processor said method comprising the steps of:-

- (i) associating computer software code suitable for said upgrade or replacement with a SIP message;
 - (ii) sending the SIP message to each of the SIP clients; and
 - (iii) executing the computer software at each of the host processors.

32. A method of testing members of a group of SIP clients each SIP client being associated with a host processor said method comprising the steps of:-

- (i) associating computer software code suitable for said testing with a SIP message;
- (ii) sending the SIP message one of the SIP clients;
- (iii) executing the computer software at the host processor associated with that SIP client in order to obtain test results; and

5 33. A method of forwarding a call from a first SIP client to a second SIP client, each of said SIP clients being associated with a host processor, said method comprising the steps of:-

- 10 (i) receiving a call at the first SIP client and if that call is not answered then associating computer software code with a SIP message said computer software code being arranged to forward a call;
- (ii) sending the SIP message from the first SIP client to a specified second SIP client; and
- 15 (iii) executing the computer software using the host processor associated with the second SIP client such that the call is forwarded to the second SIP client.

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